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IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A pH-sensitive polymer comprising ~~which is a (meth)acrylate copolymer composed of~~

20 to 65% by weight of methacrylic acid units and

80 to 35% by weight of units of C_1- to C_{18}-alkyl esters of (meth)acrylic acid,

wherein ~~characterized in that~~

~~it~~ the pH-sensitive polymer has a molecular weight in the range from 1 000 to 50 000 g/mol,

and brings about at least 60% haemolysis at pH 5.5, and less than 5% haemolysis at pH 7.4, ~~in~~ at a concentration of 150 µg/ml in a cytotoxicity test with human red blood cells.

Claim 2 (Currently Amended): The pH-sensitive polymer according to Claim 1, ~~in that it is a (meth)acrylate copolymer composed of~~

wherein the pH-sensitive polymer comprises

40 to 60% by weight of methacrylic acid units and

60 to 40% by weight of ethyl acrylate units.

Claim 3 (Currently Amended): The pH-sensitive polymer according to Claim 1, ~~characterized in that it is a (meth)acrylate copolymer composed of~~

wherein the pH-sensitive polymer comprises

20 to 40% by weight of methacrylic acid units, ~~units and~~

25 to 45% by weight of methyl acrylate units, and

25 to 45% by weight of ethyl acrylate units.

Claim 4 (Currently Amended): The pH-sensitive polymer according to Claim 1, ~~characterized in that it is a (meth)acrylate copolymer composed of~~

wherein the pH-sensitive polymer comprises

40 to 60% by weight of methacrylic acid units,

60 to 30% by weight of ethyl acrylate units and

2 to 20% by weight of butyl methacrylate.

Claim 5 (Currently Amended): The pH-sensitive polymer according to Claim 1, ~~characterized in that it is a (meth)acrylate copolymer composed of~~

wherein the pH-sensitive polymer comprises

40 to 60% by weight of methacrylic acid units,

60 to 40% by weight of ethyl acrylate units and

0.1 to 2% by weight of units of a C_8- to C_{16}-alkyl ester of acrylic or methacrylic acid.

Claim 6 (Currently Amended): The pH-sensitive polymer according to ~~one or more of Claims 1 to 5, characterized in that~~ Claim 1, wherein at a concentration of 0.03125 mg/ml ~~it~~ the pH-sensitive polymer brings about in the MTT test with the mouse macrophase-like cell type J774A.1 (ATCC TIB-67) a percentage-value of cell survival of at least 25%, based on a 100% survival rate in the control experiment.

Claim 7 (Currently Amended): The pH-sensitive polymer according to ~~one or more of Claims 1 to 5, characterized in that~~ Claim 1, wherein at a concentration of 0.03125 mg/ml ~~it~~ the pH-sensitive polymer brings about in the LDH test with the mouse macrophage-like cell type J774A.1 (ATCC TIB-67) a LDH release-value of at not more than 40%, based on 100% cytolysis (toxicity) in the control experiment.

Claim 8 (Currently Amended): The pH-sensitive polymer according to ~~one or more of Claims 1 to 7, characterized in that it~~ Claim 1, wherein the pH-sensitive polymer is in the form of a conjugate or a complex with a pharmaceutically effective natural or synthetic biomolecule or an active pharmaceutical ingredient.

Claim 9 (Currently Amended): The pH-sensitive polymer according to ~~one or more of Claims 1 to 7, characterized in that it~~ Claim 1, wherein the pH-sensitive polymer is coupled to a conformation-altering agent.

Claim 10 (Currently Amended): The pH-sensitive polymer according to ~~one or more of Claims 1 to 7, characterized in that it~~ Claim 1, wherein the pH-sensitive polymer is a constituent of a complex crosslinked via nucleic acids after chemical modification.

Claim 11 (Currently Amended): ~~Process~~ A process for preparing a pH-sensitive polymer according to Claim 1, the process comprising: ~~one or more of Claims 1 to 10 by free-radical polymerization of the monomers~~

free-radically polymerizing 20 to 65% by weight of methacrylic acid monomer units with 80 to 35% by weight of monomer units of C_1- to C_{18}-alkyl esters of (meth)acrylic acid in the presence of polymerization initiators and molecular weight regulators by block polymerization, bead polymerization, ~~or~~ emulsion polymerization, group transfer polymerization (GTP), or atom transfer radical polymerization (ATRP) to form the polymer, ~~and discharge of the polymer, characterized in that~~

discharging the polymer,

dissolving the polymer,

purifying the polymer and

drying the polymer. ~~is dissolved , is purified and is then dried.~~

Claim 12 (Currently Amended): ~~Process~~ The process according to Claim 11, ~~characterized in that~~ wherein the molecular weight regulator is dodecyl mercaptan and/or 2-ethylhexyl thioglycolate ~~is employed as molecular weight regulator~~.

Claim 13 (Currently Amended): ~~Use of a~~ A medicinal substance comprising the pH-sensitive polymer according to Claim 1 ~~one or more of Claims 1 to 10~~ as

a carrier for biomolecules or active pharmaceutical ingredients,

a conjugate for biomolecules or active pharmaceutical ingredients, ~~or~~

a complex ~~with natural or synthetic~~ for biomolecules or active pharmaceutical ingredients, ~~where appropriate as~~

or as a constituent of microparticles, nanoparticles, liposomes, emulsions and/or lipid vesicles.

Claim 14 (Currently Amended): ~~Use~~ The medicinal substance according to Claim 13 wherein said biomolecules are selected from the group consisting of ~~as carrier, conjugate or complex in combination with~~ lipids, proteins, peptides, nucleic acids and mixtures thereof. ~~acids (DNA and RNA), in particular oligonucleotides, nucleosides, antisense DNA or antisense RNA, nucleotides, toxins, immunotoxins, antibodies or fragments of antibodies or a combination thereof.~~

Claim 15 (Currently Amended): ~~Use~~ The medicinal substance according to Claim 13 ~~as carrier, conjugate or complex in combination with~~ wherein the active pharmaceutical

ingredients are selected from the the group consisting of ~~active ingredient classes of~~ analgesics, antiallergics, antirheumatics, antibiotics, antiinfectives, antiparkinson agents, antipsoriatics, antitumour agents, dermatologicals, gout remedies, immunoregulators, gastrointestinal agents, neurotropic agents, opthalmologicals, cytostatics and mixtures thereof.

Claim 16 (Currently Amended): ~~Use of a pH-sensitive polymer according to one or more of Claims 1 to 10 as ingredient of~~ The medicinal substance according to Claim 13, wherein said medicinal substance is in a dermal, transdermal, parenteral, nasal, pulmonary, vaginal or oral dosage form.

Claim 17 (Currently Amended): ~~Use~~ The medicinal substance according to Claim 16 ~~in a drug form for the therapy of~~ wherein said medicinal substance is effective in treating a disease selected from the group consisting of cancer, infections ~~(including HIV)~~, cardiovascular disorders ~~(e.g. arteriosclerosis)~~, arthritis, neurodegenerative disorders ~~(Parkinsonism, multiple sclerosis, Alzheimer's)~~, genetically related enzyme-deficiency disorders, hepatitis B and C, mucoviscidosis, hypercholesteraemia, Down's syndrome, muscular dystrophy, autoimmune diseases, shingles and herpes, psoriasis, CMV retinitis, Crohn's disease, ulcerative colitis, diabetes and mixtures thereof.

Claim 18 (New): The medicinal substance according to Claim 13 wherein said biomolecules are selected from the group consisting of oligonucleotides, nucleosides, antisense DNA, antisense RNA, nucleotides, toxins, immunotoxins, antibodies, fragments of antibodies and mixtures thereof.